

AMENDMENT TO THE CLAIMS

Claims 1-4 (canceled)

Claim 5 (currently amended): ~~The~~A computer-implemented system of claim 1,
~~further comprising for monitoring a manufacturing production line, said system~~
comprising:

an artificial neural network (ANN) for recognizing and classifying production
yield patterns;

an expert system (ES) coupled to said artificial neural network to provide a
knowledge base and apply cognitive heuristics to execute responses based
on production yield patterns information received from said artificial neural
network; and

instructions to send an report to predetermined individuals electronic report.

Claim 6 (currently amended): ~~The~~A computer-implemented system of claim 1,
~~further comprising for monitoring a manufacturing production line, said system~~
comprising:

an artificial neural network (ANN) for recognizing and classifying production
yield patterns;

an expert system (ES) coupled to said artificial neural network to provide a
knowledge base and apply cognitive heuristics to execute responses based
on production yield patterns information received from said artificial neural
network; and

instructions to provide an alarm signal.

Claim 7 (currently amended): ~~The~~ A computer-implemented system of claim 1,
further comprising for monitoring a manufacturing production line, said system
comprising:

an artificial neural network (ANN) for recognizing and classifying production
yield patterns;

an expert system (ES) coupled to said artificial neural network to provide a
knowledge base and apply cognitive heuristics to execute responses based
on production yield patterns information received from said artificial neural
network; and

instructions to send a ~~pager message to predetermined individuals.~~

Claim 8 (currently amended): ~~The~~ A computer-implemented system of claim 1,
further comprising for monitoring a manufacturing production line, said system
comprising:

an artificial neural network (ANN) for recognizing and classifying production
yield patterns;

an expert system (ES) coupled to said artificial neural network to provide a
knowledge base and apply cognitive heuristics to execute responses based
on production yield patterns information received from said artificial neural
network; and

instructions to adjust the production process in accordance with the
knowledge base of the system.

Claim 9 (currently amended): A computer-implemented method for system for
monitoring a manufacturing production line using an artificial neural network (ANN)
coupled to an expert system, said method comprising the steps of:

recognizing a plurality of production yield patterns;

classifying at least one of said production yield patterns into at least one production yield trend;

weighting said at least one production yield trend;

providing notification to expert system (ES) when at least one of said weighted trends passes a predetermined yield-degrading threshold value; and

executing responses from said expert system (ES) in accordance with said expert systems knowledge base.

Claim 10 (new): The system of claim 6 wherein said alarm signal is an audio signal.

Claim 11 (new): The system of claim 6 wherein said alarm signal is a visual signal.

Claim 12 (new): A computer-implemented system for monitoring a manufacturing production line, said system comprising:

an artificial neural network (ANN) for recognizing and classifying production yield patterns;

an expert system (ES) coupled to said artificial neural network to provide a knowledge base and apply cognitive heuristics to execute responses based on production yield patterns information received from said artificial neural network; and

instructions to send an e-mail message.

Claim 13 (new): The method of claim 7 wherein said message is a voice message.

Claim 14 (new): The method of claim 7 wherein said message is a text message.

Claim 15 (new): The method of claim 9 further comprising:

instructions to send a voice message.

Claim 16 (new): The method of claim 9 further comprising:

instructions to send a text message.

Claim 17 (new): The method of claim 9 further comprising:

instructions to send an e-mail message.

AMENDMENT TO THE DRAWINGS

The Replacement Sheet of drawings include changes to Figure 5. Specifically, as suggested by the Examiner, Figure 5's Test 230 'RXD NAHO BER' has been replaced with 'RXD MAHO BER'.

Attachment: Replacement Sheet